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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,143	01/14/2002	Gang Huang	HUANG 14-13-7	6844

7590 07/27/2007  
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2000 M Street, N.W.  
Washington, DC 20036-3307

EXAMINER
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REILLY, SEAN M

ART UNIT	PAPER NUMBER
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2153

MAIL DATE	DELIVERY MODE
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07/27/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/043,143		HUANG ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Sean Reilly		2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7,8,15,16,23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-8, 15-16, and 23-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This Office action is in response to Applicant's amendment and request for reconsideration filed on April 26, 2007. Claims 7-8, 15-16, and 23-24 are presented for further examination. These claims were previously indicated allowable in the Ex Parte Quayle action mailed on April 9, 2007 however upon further search and consideration these claims are no longer deemed allowable. Accordingly prosecution on the merits of this application is reopened and this action is made NON-FINAL.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 1. Claims 7-8, 15-16, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweitzer et al. (U.S. Patent Number 6,570,915; hereinafter Sweitzer) and Feuser et al. (On the Effects of IEEE 802.3x Flow Control in Full-Duplex Ethernet LANs, 1999; hereinafter Feuser).**
2. Regarding claims 7-8, 15-16, and 23-24, Sweitzer disclosed a self calibrating network comprising: a first node (e.g. DTU-C or DTU-R) to transmit a test signal (probe signal); and a second node (e.g. DTU-C or DTU-R) to receive said test signal and to adjust a second node transceiver to optimize the transfer of data between said first node to said second node, said

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adjustment of said second node transceiver being based on at least one of available criteria comprising a noise measurement value ("signal-to-noise ratio"), a propagation delay value, and a bit rate error value ("bit-error-rate") (Col 3, lines 17-40).

Sweitzer failed to specifically recite issuing a from the first or second nodes a network lock command, ceasing nodes other than said first node or said second node from communicating on the network. Nonetheless it was widely known in the art at the time of Applicant's invention to issue such network lock commands from particular nodes on the network to other nodes on the network, as evidenced by at least Feuser. In a similar networking system Feuser disclosed issuing network lock commands (e.g. XON and XOFF pause commands) to certain nodes on the network (see inter alia Feuser pg 1 section 1). Feuser further disclosed that pausing network communication at certain nodes on the network at particular times helps to reduce congestion and improve the performance of the data streams (see inter alia Feuser pg 1 section 1 and pg 3 Conclusions and further work). Thus, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to incorporate Feuser's network lock command functionality in the nodes of Sweitzer's network in order to reduce congestion and improve the performance of the data streams (see inter alia Feuser pg 1 section 1 and pg 3 Conclusions and further work).

**3. Claims 7-8, 15-16, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schober et al. (U.S. Patent Number 6,493,320; hereinafter Schober) and Ang (U.S. Patent Number 6,424,630) and Feuser et al. (On the Effects of IEEE 802.3x Flow Control in Full-Duplex Ethernet LANs, 1999; hereinafter Feuser).**

4. Regarding claims 1 and 9, Schober discloses a self calibrating network comprising: a first node (for example Figure 1, Routers 105a or 105b between link 110a) to transmit a test signal (any packet sent while tuning; e.g. a test pattern); and a second node (for example Figure 1, Routers 105a or 105b) to receive said test signal and to adjust (Figure 7, Component 600) a second node transceiver to optimize the transfer of data (frequency, power level) between said first node to said second node (reliable transfer at the fastest possible speed and lowest possible power level, Col 2 lines 32-42), said adjustment of said second node transceiver being based on least one of available criteria (e.g. timing of signal transitions Col 2, lines 66-67). B

However Schober failed to specifically recite said adjustment of said second node transceiver being based on a noise measurement value. In analogous network optimization system, Ang disclosed optimizing network transceivers based on a noise measurement value of a test signal (comparison signal) in order to provide an optimum configuration for processing network signals (Col 2, lines 46-64). Ang further disclosed that such an optimization scheme minimizes errors due to process variations during manufacturing (Col 2, lines 14-17). Thus, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to optimize network transceivers based on a noise measurement within the Schober's system, in order to minimize errors due to process variations during manufacturing and thus provide a more reliable system (Ang Col 2, lines 14-17).

Schober also failed to specifically recite issuing a from the first or second nodes a network lock command, ceasing nodes other than said first node or said second node from communicating on the network. Nonetheless it was widely known in the art at the time of Applicant's invention to issue such network lock commands from particular nodes on the

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network to other nodes on the network, as evidenced by at least Feuser. In a similar networking system Feuser disclosed issuing network lock commands (e.g. XON and XOFF pause commands) to certain nodes on the network (see inter alia Feuser pg 1 section 1). Feuser further disclosed that pausing network communication at certain nodes on the network at particular times helps to reduce congestion and improve the performance of the data streams (see inter alia Feuser pg 1 section 1 and pg 3 Conclusions and further work). Thus, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to incorporate Feuser's network lock command functionality in the nodes of Schober's network in order to reduce congestion and improve the performance of the data streams (see inter alia Feuser pg 1 section 1 and pg 3 Conclusions and further work).

### *Conclusion*


5. The prior art made of record, in PTO-892 form, and not relied upon is considered pertinent to applicant's disclosure.
6. This office action is made **NON-FINAL**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Reilly whose telephone number is 571-272-4228. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 15, 2006



**GLENTON E. BURGESS**  
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